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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,730	07/25/2003	Raymond Kwong	10052/4001	9704

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EXAMINER

YAMNITZKY, MARIE ROSE

ART UNIT PAPER NUMBER

1774

DATE MAILED: 06/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicati n No.

10/626,730

Applicant(s)

KWONG ET AL.

Examiner

Marie R. Yamnitzky

Art Unit

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-- The MAILING DATE of this c mmunication appears on the cover sheet with the correspondence address --

**Period f r Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3-8, 12-18, 21-27, 30-32, 34-37 and 39-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-8, 12-14, 16, 18, 31 and 41 is/are allowed.
- 6) ☒ Claim(s) 3-5, 15, 17, 21-27, 30, 32, 34-37, 39 and 40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. This Office action is in response to applicant's amendment received March 27, 2006, which amends the specification and claims 3, 6, 13, 14, 27 and 31, cancels claim 38 and adds claims 39-41.

Claims 3-8, 12-18, 21-27, 30-32, 34-37 and 39-41 are pending.

2. The rejections of claim 38 as set forth in the Office action mailed December 22, 2005 are rendered moot by claim cancellation.

3. Claims 39 and 40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). In the present instance, claim 39 recites the broad definition "wherein M is a metal", and the claim also recites "wherein M is selected from the group consisting of aluminum, gallium, zinc, copper and lead" which is the narrower statement of the range/limitation.

If M is limited to the narrower group of possibilities recited in the last two lines of the claim, then either (a) the second line after formula V should be deleted or (b) the second line after formula V should be amended to read --M is a metal selected from the group consisting of

aluminum, gallium, zinc, copper and lead;-- (with deletion of “wherein M...lead” from the last two lines).

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 3-5, 15, 17, 21-23, 27, 30, 32, 34, 39 and 40 are rejected under 35 U.S.C. 102(e) as being anticipated by Boroson et al. (US 6,703,180 B1) for reasons of record as applied to claims 3-5, 15, 17, 21-23, 27, 30, 32, 34 and 38 in the Office action mailed December 22, 2005 and the additional reasons set forth below.

Independent claims 3 and 27 have been amended to recite “the organic enhancement layer *consists essentially of* a material” whereas these claims previously recited “the organic enhancement layer *comprises* a material” (emphasis added). The transitional phrase “consists essentially of” is not closed language, does not place any specific numerical limitation on the minimum amount of the specified material present in the layer, and does not exclude the presence of additional materials that do not materially affect the basic and novel characteristics of the claimed invention. There is no clear indication in the present specification or claims that the additional material required in Boroson’s electron-transporting layer would materially affect

the basic and novel characteristics of the organic enhancement layer of the presently claimed device.

Claims 39 and 40 are included in this rejection subject to clarification as to whether M is limited to the broad definition recited in claim 39, or to the narrow definition recited in claim 39. If M is limited to the broad definition (i.e. "M is a metal"), then claims 39 and 40 correspond, respectively, to claims 3 and 4 as rejected in the December 22<sup>nd</sup> Office action. (If M is limited to the narrow definition set forth in the last two lines of present claim 39, then this rejection does not apply to claims 39 and 40.)

6. Claims 24-26 and 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boroson et al. (US 6,703,180 B1) for reasons of record in the Office action mailed December 22, 2005 and the additional reasons set forth below.

The change in claim language from "comprises" to "consists essentially of" in independent claim 3, from which claims 24-26 ultimately depend, and in independent claim 27, from which claims 35-37 ultimately depend, does not patentably distinguish claims 24-26 and 35-37 over the prior art. The transitional phrase "consists essentially of" is not closed language, does not place any specific numerical limitation on the minimum amount of the specified material present in the layer, and does not exclude the presence of additional materials that do not materially affect the basic and novel characteristics of the claimed invention. There is no clear indication in the present specification or claims that the additional material required in

Boroson's electron-transporting layer would materially affect the basic and novel characteristics of the organic enhancement layer of the presently claimed device.

7. Applicant's arguments filed March 27, 2006 have been fully considered but they are not persuasive.

Applicant argues that in the presently claimed device, the organic enhancement layer "consists essentially of" the required material whereas in Boroson et al., the material is present as a dopant in the electron transporting layer. The "consists essentially of" language of present claims 1 and 27 does not distinguish over Boroson's layer in which the material is present as a dopant. The present claim language does not exclude additional materials and applicant has not demonstrated that the additional material required in Boroson's layer would materially change the characteristics of applicant's invention. See MPEP 2111.03.

8. Claims 6-8, 12-14, 16, 18, 31 and 41 are allowed.

9. Claims 39 and 40 would be allowable if clearly limited to the narrower definition of M as set forth in the last two lines of present claim 39.

Claims 3-5, 15, 17, 21-27, 30, 32 and 34-37 would be allowable if the composition of the organic enhancement layer was closed by reciting --consists of-- instead of "consists essentially of" in claims 3 and 27.

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10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (571) 272-1531. The examiner works a flexible schedule but can generally be reached at this number from 6:30 a.m. to 4:00 p.m. Monday, Tuesday, Thursday and Friday, and every other Wednesday from 6:30 a.m. to 3:00 p.m.

The current fax number for all official faxes is (571) 273-8300. (Unofficial faxes to be sent directly to examiner Yamnitzky can be sent to (571) 273-1531.)

MRY  
June 05, 2006



MARIE YAMNITZKY  
PRIMARY EXAMINER

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